

What is claimed is:

1. A fingerprint verifying apparatus comprising:
a first light emitting device which emits
first light of a first color;

a second light emitting device which emits
5 second light of a second color;

an imaging unit which detects an image of a
fingerprint of a finger from said first light
reflected by a finger;

a fingerprint verifying circuit which has
10 registered fingerprint images, and compares said
detected fingerprint image and each of said registered
fingerprint images to determine whether said detected
fingerprint image is coincident with any of said
registered fingerprint images, and outputs a match
15 signal when said detected fingerprint image is
coincident with any of said registered fingerprint
images; and

a drive switch which turns on said second
light emitting device in response to said match
20 signal.

2. The fingerprint verifying apparatus according
to claim 1, further comprising:

a third light emitting device which emits
second light of a second color, and

5 said fingerprint verifying circuit outputs a

mismatch signal when said detected fingerprint image is not coincident with any of said registered fingerprint images, and

10 said drive switch turns on said third light emitting device in response to said mismatch signal.

3. The fingerprint verifying apparatus according to claim 1, wherein said first to third colors are different from each other.

4. The fingerprint verifying apparatus according to claim 3, wherein said second color is of a cool color system, and said third color is of a warm color system.

5. The fingerprint verifying apparatus according to claim 4, wherein said first color is of a middle color system between the cool color system and the warm color system.

6. The fingerprint verifying apparatus according to claim 1, further comprising:

a first blink circuit provided between said second light emitting device and said drive switch,

5 and

wherein said first blink circuit blinks said second light when said second light emitting device is

turned on.

7. The fingerprint verifying apparatus according to claim 1, further comprising:

a second blink circuit provided between said third light emitting device and said drive switch, and

5 wherein said second blink circuit blinks said third light when said third light emitting device is turned on.

8. The fingerprint verifying apparatus according to claim 1, further comprising:

a power supply circuit which supplies power;
and

5 a first switch provided between said power supply circuit and said fingerprint verifying circuit to supply the power from said power supply circuit to said fingerprint verifying circuit in response to a detection signal, and

10 wherein said drive switch supplies the power from said power supply circuit to said first to third light emitting device in response to said detection signal.

9. The fingerprint verifying apparatus according to claim 8, further comprising:

a finger detector which detects that said

finger is put thereon to generate a detection signal;

10. The fingerprint verifying apparatus according to claim 1, further comprising:

a prism which passes said first to third lights to said finger and said first light reflected
5 by the finger to said imaging unit, and

wherein said finger detection is put on one plane of said prism, said first to third light emitting devices are provided on a side of another plane of said prism to emit said first to third lights
10 to said prism, and said imaging unit is provided on a side of another plane of said prism to receive said reflected first light.

11. The fingerprint verifying apparatus according to claim 1, wherein said imaging unit, said first to third light emitting devices and said finger detector are made as a unitary body.

12. A method of verifying a fingerprint of a finger, comprising the steps of:

(a) turning on a first light emitting device such that first light of a first color is emitted to
5 irradiate said finger;

(b) detecting an image of said fingerprint of said finger;

(c) comparing said detected fingerprint image and each of registered fingerprint images to determine whether said detected fingerprint image is coincident with any of said registered fingerprint images;

(d) generating a match signal when said detected fingerprint image is coincident with any of said registered fingerprint images; and

15 (e) in response to said match signal, turning off said first light emitting device and turning on said second light emitting device such that second light of a second color is emitted.

13. The method according to claim 12, further comprising the steps of:

(f) generating a mismatch signal when said detected fingerprint image is not coincident with any of said registered fingerprint images; and

(g) in response to said mismatch signal, turning off said first light emitting device and turning on said third light emitting device such that third light of a third color is emitted.

14. The method according to claim 12, further comprising the steps of:

(h) generating a verification impossible when it cannot be determined whether or not said detected fingerprint image is coincident with any of said

registered fingerprint images; and

(i) continuing said first light emitting device to be turned on, in response to said verification impossible signal.

15. The method according to claim 12, wherein said first to third colors are different from each other.

16. The method according to claim 15, wherein said second color is of a cool color system, and said third color is of a warm color system.

17. The method according to claim 16, wherein said first color is of a middle color system between the cool color system and the warm color system.

18. The method according to claim 12, wherein said step of (e) turning on comprises the step of:
blinking said second light when said second light emitting device is turned on, and

5 said step of (g) turning on comprises the step of:

blinking said third light when said third light emitting device is turned on.

19. The method according to claim 12, further

comprising the steps of:

detecting that a finger is present, to
generate a detection signal; and

5 activating said steps (a), (c), (d) and (e)
in response to said detection signal.